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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,159	08/16/2001	Hitoshi Iwasaka	1609.1001	1497

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EXAMINER	
RINEHART, KENNETH	
ART UNIT	**PAPER NUMBER**
3749	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/930,159	IWASAKA ET AL.	
	Examiner	Art Unit	
	Kenneth B. Rinehart	3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,8-14,31,32,38-54 and 59-61* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *8,9,31,32 and 59* is/are allowed.

6)☒ Claim(s) *1,10-14,38-45,48-50,53,54,60 and 61* is/are rejected.

7)☒ Claim(s) *46,47,51 and 52* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 4/6/07 have been fully considered but they are not persuasive. Mr. Tokunaga statements are conclusory in that he uses no facts to support him. Moreover, the declarant makes no indication how his statements traverse the prima facie showing of obviousness. To the extent he would like the Office to speculate on how the conclusory statements rebut the prima facie showing, such desire has not been entertained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 10, 11, 14, 38, 41, 44, 39, 40, 42, 43, 45, 50, 60, and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over 11373367. 11373367 discloses a body having an end face that opposes an object being conveyed (fig. 1, fig. 2), and at least one concave opening formed in the end face and surrounded by a cylindrical inner side wall (3, fig. 2); at least one fluid passageway having at least one spout to introduce fluid into an inner space of the concave opening in one circumferential direction of the cylindrical inner sidewall so as to cause a swirl of fluid within the concave opening (fig. 2), the at least one spout being formed on the cylindrical inner sidewall (4, fig. 1), a centering guide (7, fig. 3), and a centering mechanism provided at the body to ... the centering guide in a direction towards the object to cause the centering guide to control a lateral movement of the object, and a centering mechanism provided at the base and ...

the centering guide in a direction towards the object to cause the centering guide to control a lateral movement of the object being conveyed, a centering mechanism to ... the centering guide so that the centering guide controls a lateral movement of the object (fig. 3), a base (1, fig. 1), a plurality of fluid swirl formation objects which are provided at the base (fig. 1), fluid swirls clockwise in at least one of the plurality of fluid swirl formation objects, and fluid swirls counter clockwise in at least one of the plurality of fluid swirl formation objects (fig. 2), the at least one spout further comprises plural pairs of spouts (4, fig. 1), and each of the plural pairs of spouts is formed on the cylindrical inner side wall symmetrically to a central axis of the concave opening (fig. 1), the plurality of fluid swirl formation objects are provided at the base in such a way that each of the plurality of fluid swirl formation objects extends from the base (fig. 1), at least one fluid discharge passage provided in the base to expel fluid supplied through the at least one spout of the plurality of fluid swirl formation objects (between items 1 and 5, fig. 1), a body having an end face that opposes an object being conveyed (fig. 1, fig. 2), and at least one concave opening formed in the end face and surrounded by a cylindrical inner side wall (3, fig. 2); at least one fluid passageway having at least one spout to introduce fluid into an inner space of the concave opening in one circumferential direction of the cylindrical inner sidewall so as to cause a swirl of fluid within the concave opening (fig. 2), the at least one spout being formed on the cylindrical inner sidewall (4, fig. 1), a centering guide (7, fig. 3), and a centering mechanism provided at the base and ... the centering guide in a direction towards the object to cause the centering guide to control a lateral movement of the object being conveyed, a centering mechanism to ... the centering guide so that the centering guide controls a lateral movement of the object (fig. 3), a base (1, fig. 1), a plurality of fluid swirl formation objects which are provided at the base (fig. 1),

fluid swirls clockwise in at least one of the plurality of fluid swirl formation objects, and fluid swirls counter clockwise in at least one of the plurality of fluid swirl formation objects (fig. 2), the at least one spout further comprises plural pairs of spouts (4, fig. 1), and each of the plural pairs of spouts is formed on the cylindrical inner side wall symmetrically to a central axis of the concave opening (fig. 1), the plurality of fluid swirl formation objects are provided at the base in such a way that each of the plurality of fluid swirl formation objects extends from the base (fig. 1), the non-contacting conveyance equipment has an outer periphery (fig. 1), the centering guide comprises at least three centering protrusions provided around the outer periphery, the centering protrusions are ...from a center of the non-contacting conveyance equipment (fig. 1-3), and the non-contacting conveyance equipment further comprises a centering mechanism to ... the radial distance of the centering protrusions from the center of the non-contacting conveyance equipment (7, fig. 1), a body having an end face that opposes an object being conveyed (fig. 1, fig. 2), and at least one concave opening formed in the end face and surrounded by a cylindrical inner side wall (3, fig. 2); at least one fluid passageway having at least one spout to introduce fluid into an inner space of the concave opening in one circumferential direction of the cylindrical inner sidewall so as to cause a swirl of fluid within the concave opening (fig. 2), the at least one spout being formed on the cylindrical inner sidewall (4, fig. 1), a centering guide (7, fig. 3), and a centering mechanism provided at the body to adjust the centering guide to cause to control a lateral movement of the object, wherein the centering mechanism ... the centering guide, the centering mechanism ... the centering guide in a lateral direction (fig. 3). 11373367 discloses the claimed invention except for move, moves, the end face comprises a chamfered edge, the concave opening is in a tapered shape, radially displaced. It would have been obvious

to one of ordinary skill in the art at the time the invention was made to move, since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. Applicant has not disclosed that the shape of the end face or the shape of the concave opening or the location provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the shape and location of 11373367 or the claimed shape because both shapes and locations perform the same function equally well. 11373367 discloses the claimed invention except for move, moves, vary. It would have been obvious to one of ordinary skill in the art at the time the invention was made to move, vary since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art.

Claims 12, 13, 48, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over 11373367 in view of Siniaguine et al (6099056). 11373367 discloses a body having an end face that opposes an object being conveyed (fig. 1, fig. 2), and at least one concave opening formed in the end face and surrounded by a cylindrical inner side wall (3, fig. 2); at least one fluid passageway having at least one spout to introduce fluid into an inner space of the concave opening in one circumferential direction of the cylindrical inner sidewall so as to cause a swirl of fluid within the concave opening (fig. 2), the at least one spout being formed on the cylindrical inner sidewall (4, fig. 1), a centering guide (7, fig. 3), and a centering mechanism provided at the base and ... the centering guide in a direction towards the object to cause the centering guide to control a lateral movement of the object being conveyed, a centering mechanism to ... the

centering guide so that the centering guide controls a lateral movement of the object (fig. 3), a base (1, fig. 1), a plurality of fluid swirl formation objects which are provided at the base (fig. 1), fluid swirls clockwise in at least one of the plurality of fluid swirl formation objects, and fluid swirls counter clockwise in at least one of the plurality of fluid swirl formation objects (fig. 2), the at least one spout further comprises plural pairs of spouts (4, fig. 1), and each of the plural pairs of spouts is formed on the cylindrical inner side wall symmetrically to a central axis of the concave opening (fig. 1), the plurality of fluid swirl formation objects are provided at the base in such a way that each of the plurality of fluid swirl formation objects extends from the base (fig. 1), an end face that opposes an object to be conveyed (fig. 1) , the end face being formed in the concave opening (fig. 1), a fluid passageway comprising a spout facing the inside of the concave opening, (4, fig. 1) the fluid passageway ending at an opening through the inner peripheral surface, to supply fluid to the inner peripheral surface of the concave opening so as to cause a swirl of fluid within the concave opening (fig. 2), and a base with a plurality of concave openings are provided on the base, each concave opening having an end face formed therein and a fluid passageway comprising a spout facing the inside thereof (fig. 2). 11373367 discloses applicant's invention substantially as claimed with the exception of the base is surrounded with a peripheral edge to block a flow of fluid from the base, peripheral edge has a stepped shape, move, moves. Siniaguine et al (6099056) teaches the base is surrounded with a peripheral edge to block a flow of fluid from the base (13, fig. 1B) for the purpose of retaining the object adjacent to the facing surface. It would have been obvious to one of ordinary skill in the art to modify 11373367 by including the base is surrounded with a peripheral edge to block a flow of fluid from the base as taught by Siniaguine et al (6099056) for the purpose of retaining the object

adjacent to the facing surface so that the object is not damaged. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to have stepped shape because Applicant has not disclosed that the shape of the edge provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the shape of Siniaguine or the claimed shape because both shapes perform the same function equally well. 11373367 in view of Siniaguine discloses the claimed invention except for move, moves. It would have been obvious to one of ordinary skill in the art at the time the invention was made to move, since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art.

Claims 49 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over 11373367 in view of Akashi (5067762). 11373367 discloses a body having an end face that opposes an object being conveyed (fig. 1, fig. 2), a base and at least one concave opening formed in the end face and surrounded by a cylindrical inner side wall (3, fig. 2); at least one fluid passageway having at least one spout to introduce fluid into an inner space of the concave opening in one circumferential direction of the cylindrical inner sidewall so as to cause a swirl of fluid within the concave opening (fig. 2), the at least one spout being formed on the cylindrical inner sidewall (4, fig. 1), a centering guide (7, fig. 3), and a centering mechanism provided at the body to adjust the centering guide in a direction towards the object to cause the centering guide to control a lateral movement of the object (fig. 3), a base (1, fig. 1), a plurality of fluid swirl formation objects which are provided at the base (fig. 1), fluid swirls clockwise in at least one of

the plurality of fluid swirl formation objects, and fluid swirls counter clockwise in at least one of the plurality of fluid swirl formation objects (fig. 2), the at least one spout further comprises plural pairs of spouts (4, fig. 1), and each of the plural pairs of spouts is formed on the cylindrical inner side wall symmetrically to a central axis of the concave opening (fig. 1), the plurality of fluid swirl formation objects are provided at the base in such a way that each of the plurality of fluid swirl formation objects extends from the base (fig. 1), a centering guide (7, fig. 3), a centering mechanism to ... the centering guide so that the centering guide controls a lateral movement of the object (fig. 3). 11373367 disclose applicant's invention substantially as claimed with the exception of at least one fluid passage provided in the base to eliminate fluid supplied through the spouts, move. Akashi (6099056) teaches at least one fluid passage provided in the base to eliminate fluid supplied through the spouts for the purpose of removing the exhaust form a clean room environment. It would have been obvious to one of ordinary skill in the art to modify 11373367 by including at least one fluid passage provided in the base to eliminate fluid supplied through the spouts as taught by Akashi (6099056) for the purpose of removing the exhaust form the clean room to prevent foreign material form creating defective product. 11373367 in view of Akashi discloses the claimed invention except for move, moves. It would have been obvious to one of ordinary skill in the art at the time the invention was made to move, since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art.

Allowable Subject Matter

Claims 8, 9, 59, 31, 32 are allowed.

Claims 46, 47, 51, 52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B. Rinehart whose telephone number is 571-272-4881. The examiner can normally be reached on 7:20 -4:20.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

kbr

KENNETH RINEHART
PRIMARY EXAMINER